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(71) Applicant (for all designated States except US): **ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE** [KR/KR]; 161, Gajeong-dong, Yuseong-gu, Daejeon, 305-350 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHOI, In-Kyeong** [KR/KR]; Mokryun Apt. 304-1102, Dunsan-dong, Seo-gu, Daejeon-city, 302-120 (KR). **KIM, Seong-Rag** [KR/KR]; Expo Apt. 204-601, Jeonmin-dong, Yuseong-gu, Daejeon-

city, 305-390 (KR). **KWON, Dong-Seung** [KR/KR]; Expo Apt. 204-1304, Jeonmin-dong, Yuseong-gu, Daejeon-city, 305-390 (KR). **CHOI, Jin-Ho** [AU/AU]; 26, Holland Place Dundas, NSW, 2117 (AU).

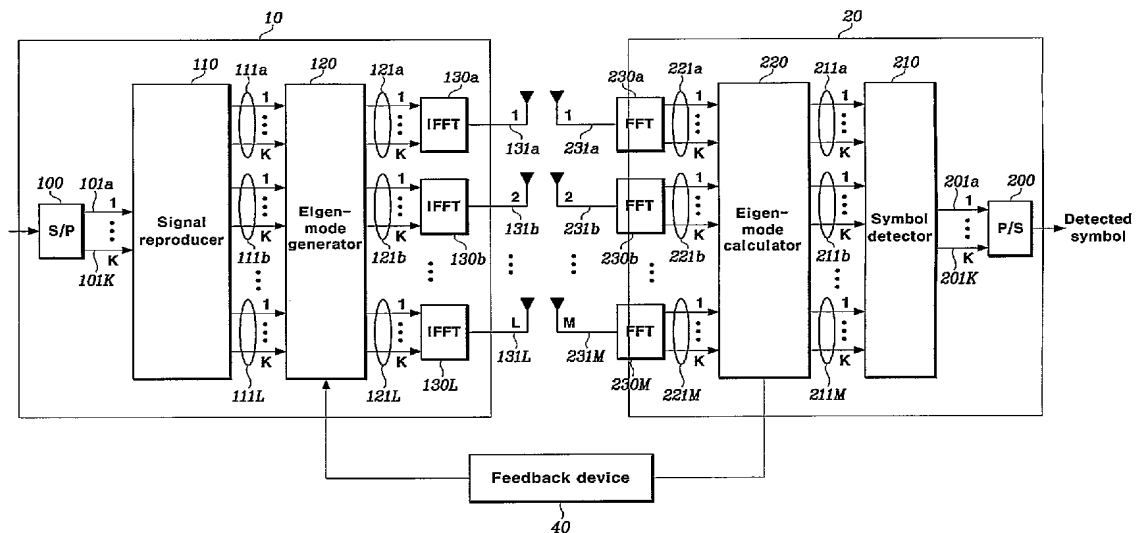
(74) Agent: **YOU ME PATENT AND LAW FIRM**; Seolim Bldg., 649-10, Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).

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(54) Title: A MIMO-OFDM SYSTEM USING EIGENBEAMFORMING METHOD



(57) Abstract: Disclosed is a MIMO-OFDM system, wherein the transmitter comprises a serial/parallel converter for converting continuously inputted symbols of the number of subcarriers to K parallel signals; a signal reproducer for reproducing K parallel signals by the number of transmit antennas L; an eigenmode generator for generating eigenbeam of the reproduced signals outputted from the signal reproducer at each subcarrier, on the basis of Nf eigenbeam forming vectors which are fed back long-term and information of a best eigenbeam forming vector at each subcarrier which is fed back short-term, through the feedback device; and a plurality of inverse Fourier converters for receiving the signals outputted from the eigenmode generator and generating an OFDM symbol.

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